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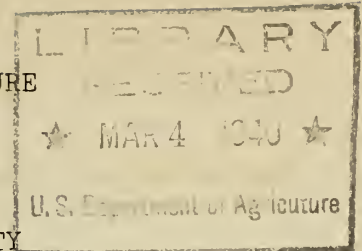
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HAY PROBLEMS WITH EMPHASIS ON QUALITY

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Roughage programs for the South have been widely discussed in the past. Accomplishments you will probably agree have not been great. The time has come, therefore, for southern agricultural workers interested in roughage problems to crystallize their thinking and to develop a practical plan for attacking these problems. It will be necessary to have a program that southern farmers can use effectively. The partial failure of previous efforts to bring livestock into the Cotton Belt was due to a large extent to failure to provide adequate summer pasturage and sufficient high-quality roughage for winter feeding.

Southern agricultural workers are rather generally agreed that the supply of roughages should be increased and the quality improved. The supply may be increased by expanding the acreage and increasing yields per acre. All of us are familiar with the difficulty of increasing the supply of roughage in most areas of the South. These difficulties include such things as failure of farmers generally to appreciate the importance of high-grade roughage in the economic production of livestock and livestock products and in soil conservation, the general lack of interest of tenant farmers in livestock and feed crops, the one-crop system of farming which prevails throughout most of the South, small-sized farms, low incomes of farmers and unfavorable weather. Aid provided by the Agricultural Adjustment Administration and other governmental agencies is helping extension workers to overcome some of these difficulties. Have southern agricultural workers as a whole taken full advantage of the opportunities offered them in this connection?

The production of high-quality roughage in the South also presents a problem. The weather is not always favorable for harvesting, curing, and storing roughage. But the weather should not be used as an excuse for ignoring the need for such improvements as earlier cutting and better methods of curing, handling, and storing roughages to preserve quality. In sections such as northern Ohio and southern Michigan where weather conditions for

hay making are about the same as those of the South, farmers generally have produced high-grade hay for generations.

In the Black Belt of Alabama and Mississippi high-quality hay is now being produced largely as the result of educational work that has been done during the past 10 years to improve hay-making practices. In Washington County, Mississippi, and in other delta counties from southeastern Missouri southward, weather conditions are probably the most unfavorable of any section of the South as a result of the heavy dews. Yet, in this delta area considerable advances in producing hay of good quality have been noted in recent years. Individuals scattered throughout the Southern States have demonstrated that high-quality hay can be produced. It is believed that if southern agricultural workers will study southern roughage problems and attack them in an organized way the quality of roughages produced and fed in the South may be greatly improved and the supply increased.

Every southern agricultural worker knows that important quality factors in roughages are: (1) the state of maturity at which the plants are cut; (2) leafiness in the case of legumes; (3) the amount of natural green color that may be preserved in the process of curing and storage; (4) the freedom from foreign material; and (5) freedom from must and mold.

In the production of roughage, it is important to strive for more pounds of digestible nutrients per acre. This means higher yields and better-quality roughage. It is not sufficient merely to increase the tonnage. The quality must be improved. There is probably no farm crop produced in the South, with the possible exception of tobacco, that requires more careful and intelligent attention to small details than does the production of high-grade hay. On the other hand, there is no crop grown in the South that has been neglected as much. Unnecessary mistakes anywhere along the line, from seeding to harvesting and storage, frequently result in a loss in quality and a loss in returns through livestock feeding.

It is unfortunate that a large amount of the roughage produced in the South is of such poor quality that the consumption per animal unit is relatively low. Past efforts to improve hay quality have been directed more toward that small proportion of the hay crop that moves into commercial channels, whereas the emphasis should be placed by all of us on the betterment of the more than 90 percent that is consumed on the farms where it is produced.

An important point to be considered in providing ample supplies of high-quality hay is the need for improved storage facilities. Additional barns and hay sheds are badly needed. Weather



conditions in the South during the winter months when heavy rains occur are most unfavorable for hay that has been stacked in the open. Very little high-quality hay can be obtained from the typical small hay stack built around a pole.

The use of trench silos will, no doubt, play a part in solving roughage problems in the South. The method of curing hay by electric fans, which was evolved by the Tennessee Valley Authority, appears to offer some possibility. A number of dehydrators for artificially drying forage crops have been installed in certain sections during the past few years, but their widespread use will necessarily be limited by the initial cost. The bulk of roughage necessary for winter feeding of southern livestock will, however, be supplied for many years to come largely by field-cured hay.

Much consideration in recent years has been given to planning, land utilization, soil conservation, integration and coordination of agricultural programs, better diets for farm people, the live-at-home idea, and increasing the farmers' cash income. The action taken toward solving these problems has accomplished results that are becoming more and more tangible. To be most successful, such programs for the South must give every consideration to increasing the supply and improving the quality of livestock feed, livestock, and livestock products.

The roughage program cannot be properly handled by a livestock specialist alone or any other individual specialist. The development of the program and its operation will require joint action and composite opinion of all interested agencies, including agronomy, dairy and animal husbandry, farm management, agricultural engineering, home economics and conservation specialists. Unless the program is handled in such a manner it will be a hit-and-miss affair, progress will be slow, and only a small part of the program will reach the farmer in a form that he can use.

It will require a group of trained and experienced workers to develop and carry forward a successful forage program in the Southern States. It is unfortunate that many of the county agents and other agricultural workers in the South have not had a large amount of training and experience with forage crops. This raises the question as to the best way to tackle the problem of training personnel for the work. A number of 2- and 3-day forage schools have been held at leading State colleges in the Northern States better to acquaint specialists with roughage problems, the relationship of quality in roughage to feed value, and how quality is influenced by roughage-production practices. Perhaps two or three such schools could be held at centrally located points in

the South to bring together leaders in the forage field for additional study of roughage problems and to develop programs of work to meet the practical needs of southern farmers.